

CLAIMS

What is claimed is:

1-7. (Canceled)

8. (Currently amended) A process for preparing a carbon nanotube electrode, comprising the steps of:

(1) preparing an electrode material by mixing carbon nanotubes with a binder selected from the group consisting of ~~comprising~~ sulfur having an average particle size of 1 μ m or less, [[or]] metal nanoparticles having an average particle size of 1 μ m or less and both of them, or [[by]] depositing a binder selected from the group consisting of ~~comprising~~ sulfur having an average particle size of 1 μ m or less, [[or]] metal nanoparticles having an average particle size of 1 μ m or less and both of them on the carbon nanotubes;

(2) preparing a pressed electrode material by first pressing the electrode material under a pressure from 1 to 500 atm; and

(3) subsequently pressing under a pressure from 1 to 500 atm, or heat-treating at a temperature in the range of the melting point of the sulfur or metal nanoparticles $\pm 200^{\circ}\text{C}$ in inert gas atmosphere, or simultaneously pressing under the said pressure and heat-treating at the said temperature in inert gas atmosphere the previously pressed electrode material that is placed on a current collector so that the carbon nanotubes are bonded to each other and simultaneously bonded to the current collector.

9. (Previously Presented) The process according to claim 8, wherein in step (2), the electrode material is uniformly dispersed on a current collector and then pressed, or simultaneously dispersed and pressed.

10-11. (Canceled)

12. (Previously Presented) The process according to claim 8, wherein in step of (1), the mixing of carbon nanotubes with sulfur or metal nanoparticles is performed by a method chosen from the group consisting of physical mixing, ultrasonic-mixing, solvent-mixing, and uniformly dispersing the sulfur or metal nanoparticles on the surfaces of the carbon nanotubes.

13. (Previously Presented) The process according to claim 12, wherein the method of uniformly dispersing sulfur or metal nanoparticles on the surfaces of carbon nanotubes is carried out by a method selected from the group consisting of catalytic impregnation followed by an optional oxidation or reduction, precipitation, chemical vapor deposition (CVD), electrodeposition, plasma spraying, and sputtering.

14. (Original) The process according to claim 8, wherein the primary pressing in step (2) provides the electrode material in the shape of a disk or thin film.

15. (Original) The process according to claim 8, wherein in step (3), the pressing and the heat-treatment are carried out simultaneously or consecutively.

16. (Original) The process according to claim 8, wherein in step (3), the heat-treatment is carried out by a heating method selected from the group of thermal heating, chemical vapor deposition, plasma heating, RF (radio frequency) heating, and microwave heating.

17- 19. (Canceled)

20. (Previously Presented) A secondary battery comprising the carbon nanotube electrode prepared according to the process of claim 8.

21-22. (Canceled)